

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR THE ENVIRONMENTAL ASSESSMENT:**

MINNESOTA CORMORANT SCIENTIFIC COLLECTION PERMIT

Cormorants are fish eating birds that nest in large colonies. Cormorants on Leech Lake, Minnesota nest primarily on the tribally-owned Gull and Little Pelican Islands. The number of cormorants at this colony increased dramatically in the late 1990s and peaked in 2004 with a fall population of around 10,000 birds. Sport anglers and the tourism community expressed concern that the colony was having an adverse effect on the game and forage fish populations. To address these concerns, the Leech Lake Band Division of Resources Management (hereafter, Band), in partnership with the U.S. Fish and Wildlife Service (USFWS), Minnesota Department of Natural Resources, and University of Minnesota, initiated multiple diet and fisheries studies beginning in 2005, which have continued in different capacities to 2016.

Results of these studies, while informative, were confounded by impacts of other management activities that had been initiated concurrently with cormorant population reduction that was taking place on the lake. Walleye fry stocking during 2005-2014, including legislatively mandated stocking, added high numbers of young walleye to the lake. Stocking caused unusually fast growth rates, particularly for juvenile walleye, and may have altered cormorant diet in terms of species type and or size composition during stocked years. Ultimately, the high number of walleye caused perch populations to decline, making them less available to cormorants. In addition to complications from concurrent fishery management actions, unusually low walleye survival during the mid-2000s when cormorant abundance was increasing resulted in exceptionally fast growth rates of juvenile walleye. When compared to historical length-at-age records, the walleye year classes evaluated in diet studies in 2005 and 2008 may have prematurely outgrown the size range susceptible to cormorant predation. To elucidate a more accurate representation of the dynamics of fish and cormorants in Leech Lake, the Band would like to conduct additional research.

Another management issue currently impacting Leech Lake is recently discovered zebra mussel veligers (the final larval stage of zebra mussels). It is anticipated that within the next half dozen years this species will establish itself throughout the lake, altering the food web and availability of food for small fish. Leech Lake research is a high priority because zebra mussels are not yet established; meaning the opportunity to collect pre-establishment information still exists. Analysis of existing and proposed diet studies will provide a tool for evaluating the role of cormorants as a top predator in freshwater systems and will aid in determining the role of cormorants as lake ecology is modified by zebra mussels.

To conduct this necessary research in 2017, the Band requested a Scientific Collection Permit (50 C.F.R. § 21.23) from the USFWS to take cormorants for their studies. Previously, the Band acquired cormorant carcasses for their research under other valid permits as well as from cormorant damage management

activities authorized under the recently vacated Public Resource Depredation Order (50 C.F.R. § 21.48). Issuing a scientific collection permit would also respect the sovereignty of the Band. The proposed studies to be conducted at Leech Lake will provide critical data needed for the long-term management of the lake, as well as insights on trophic interactions that can be applied to other systems throughout the Glacial Lakes Region where cormorant depredation of free-swimming fish is of concern.

To ensure that the USFWS is in compliance with orders from a federal court ruling, an EA was drafted to document the need for issuing a scientific collection permit and to assess potential impacts on the human environment from the proposed action.

MAJOR ISSUES

The EA describes the alternatives considered and evaluated using the identified issues. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

- Effects on cormorant populations
- Effects on other wildlife species, including threatened and endangered species
- Effects on aesthetic values
- Humaneness and animal welfare concerns of the methods used

AFFECTED ENVIRONMENT

The proposed action would take up to 700 adult cormorants that occur only at breeding colonies on Gull and Pelican Islands within Leech Lake Minnesota in 2017. Lethal and nonlethal methods will be used to achieve study objectives. Take of cormorants is limited to a 3/4 mile buffer around the islands. There is potential for short-term closures within this buffer area when cormorant management activities are occurring, but these would only be in effect from the arrival of cormorants in early spring until approximately mid-June.

ALTERNATIVES THAT WERE FULLY EVALUATED

Alternative 1 – Issue a Scientific Collection Permit (Proposed Action)

Under this alternative, the USFWS would authorize a Scientific Collection Permit (50 C.F.R. § 21.23) for take of cormorants by the Band. A diet study and a study to analyze fish dynamics under stable cormorant populations are being conducted. The objectives and methods of the two studies are as follows:

Objectives of diet study

- (1) Quantify cormorant predation on non-stocked walleye year classes (2015-present);
- (2) Assess the effect(s) that walleye fry stocking and above-average juvenile walleye growth may have had on previous cormorant consumption estimates

- (3) In combination with previous diet work, establish a baseline understanding of cormorant influence on fish populations prior to zebra mussel establishment
- (4) Refine the current management target of 500 nesting pairs (USDA 2005) as appropriate using empirical evidence
- (5) This study requires the take of approximately 30 adult cormorants per week starting as soon as the birds arrive in the spring until they begin to migrate south in the fall (mid-April to August)

Objectives for monitoring fish population under a fixed cormorant population

- (1) Evaluate the survival of natural walleye year classes under the current cormorant management target of 500 nesting pairs.
- (2) This study will rely on aerial flights and ground counts to assess the cormorant population on Leech Lake. Based on estimates, cormorants will be removed using lethal and nonlethal methods to maintain a breeding population of 500 reproducing pairs

Alternative 2 – Only Nonlethal Management (No Action)

Under this alternative, the USFWS would not issue a Scientific Collection Permit to the Band authorizing take of cormorants for their ongoing research. The Band would be able to use nonlethal methods to try to control the cormorant population on Gull and Pelican Islands to achieve the objectives for monitoring fish populations under a fixed cormorant population, but would not be able to meet the objectives of the diet study that requires lethal take of cormorants.

FINDING OF NO SIGNIFICANT IMPACT

The analysis in the EA indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment because of this proposed action. This determination is based on the following factors:

1. The proposed action has low adverse impacts on the Minnesota cormorant population as well as other co-nesting species that occupy the Gull and Pelican Island colony. This action has a greater potential for beneficial impacts, both direct and incidental, to other wildlife species.
2. The proposed action would have no effect on public health and safety.
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built in mitigation measures for standard operating procedures as well as adherence to laws and regulations will further ensure that the agencies' activities do not harm the environment.
4. The effects of the quality of the human environment are not highly controversial. Although there may be some opposition to lethal and nonlethal methods of take, this action is not highly controversial in terms of size, nature, or effect and in general, the public has been supportive of cormorant reduction on Leech Lake.
5. The effects of the proposed activities are not uncertain and do not involve unique or unknown

risks.

6. The proposed action would not establish a precedent for any future action with significant effects.
7. The proposed action would likely account for all take of adult cormorants in the state of Minnesota. Therefore, no significant cumulative effects were identified through this assessment. The EA discussed cumulative effects on target and non-target species populations and concluded that such impacts were not significant for this action.
8. The proposed action would not affect any structures listed in the National Register of Historic Places, nor would they cause any loss of significant cultural or historical resources.
9. The USFWS has determined that the proposed action would have no effect on any Federal listed threatened or endangered species. This determination is based upon searches of natural heritage and endangered species databases, scientific research, Leech Lake monitoring, and expert opinion. In addition, the proposed action will not adversely affect any Minnesota State or Tribally listed threatened and endangered species.
10. The proposed action would comply with all federal, state, and local laws.

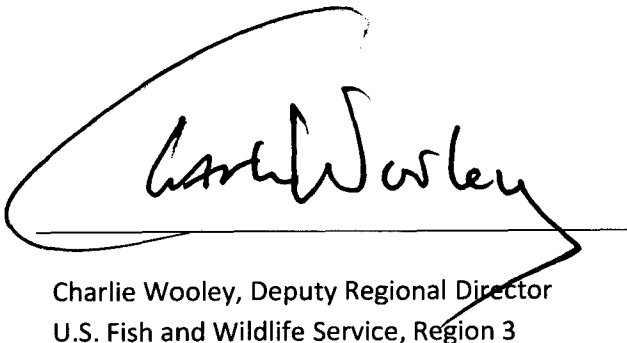
DECISION AND RATIONALE

I have carefully reviewed the EA prepared for this proposal. I believe that the rationale to continue scientific research related to cormorant dynamics on Leech Lake is robust and is best addressed by selecting Alternative 1 - issuing a scientific collection permit.

This alternative is selected because:

1. it best meets the need for action; it allows the Band to continue important research that may potentially have long-term ramifications for managing natural resources on Leech Lake and may provide insights into trophic interactions that could provide guidance for other lake systems within the Great Lakes Region;
2. it will potentially provide the USFWS with information that will help guide future cormorant management in the Great Lakes region; and
3. it provides the most benefit, albeit incidental, to other co-occurring species on Leech Lake.

Therefore, it is my decision to implement the proposed action as described in the EA.



Charlie Wooley, Deputy Regional Director
U.S. Fish and Wildlife Service, Region 3

4/28/17
Date